ROOT PAIN AND PARAPLEGIA DUE TO PROTRUSIONS OF THORACIC INTERVERTEBRAL DISKS

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At the meeting of this society in New York in 1944, one of us (J.G.L.) read a paper on the differential diagnosis of intraspinal tumors and protruded intervertebral disks in the lumbar region and their surgical treatment. During the past five years, we have learned a great deal regarding the protrusion of intervertebral disks in the cervical and the thoracic regions of the spinal column. Many bizarre neurologic conditions have been found to be due to such protrusions and many patients can be benefited if proper therapeutic measures are applied before irreparable damage to the spinal cord has occurred.

The protrusions of disks in the cervical region have received a good deal of recognition, and many excellent papers have been published on the subject. Protrusions of disks in the thoracic region, on the other hand, have had little recognition. Bradford and Spurling in their book reported a case of paraparesis due to protrusion of the 4th thoracic disk. Their patient made a complete recovery following operative removal of the protruded disk.

Young of Australia reported 4 cases of protruded intervertebral disk in the thoracic region in which the diagnosis was proved at operation, and he emphasized that this lesion in the past has been given many different names. Lesions in the upper part of the region with reference of the pain to the thorax were called “pleurodynia,” “intercostal neuralgia,” “intercostal neuritis” and “fibrositis.” When lesions in the lower part of the thoracic region produced radicular pain which projected into the abdomen and groin, intra-abdominal disease might be suspected.

In 1 of Young's 4 cases, the 3rd disk was degenerated, in 2 the 10th disk was degenerated and in 1 the 11th disk was herniated. In visiting with several neurosurgeons of considerable experience in all fields of neurosurgery including disk surgery, one of us (J.G.L.) was surprised to learn that many of them had never seen a protruded disk in the thoracic region; and one or two surgeons felt that from what they knew about the lesion, it had best be left alone.

Because of the scant consideration that protruded disks occurring in the thoracic region have received, we felt it timely to call attention to the lesion and to report the experiences at the Mayo Clinic with it.

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From 1922 through 1948 the diagnosis of protruded thoracic disk has been verified at operation at the Mayo Clinic in 17 cases. The relative incidence of cases of protruded disks in the thoracic region among all cases of protruded intervertebral disks (lumbar and cervical as well) was estimated for the 10-year period of 1939 through 1948 at the clinic. In this interval about 5500 operations were carried out for protruded intervertebral disks, and investigation disclosed that in 12 of our 17 cases the operation had been performed during these years. This gives a relative incidence of about 2 to 3 cases of protruded disks in the thoracic region per 1000 cases.

The incidence of protruded disks in the thoracic region was found to be about equal in the two sexes. There were 8 males and 9 females in our series. The occupations varied from laborer to lawyer, and from farm housewife doing heavy work to stenographer. The youngest patient in the group was 26 years old. Of the other patients 7 were in the age group from 31 to 40 years; 5 from 51 to 60; 2 from 61 to 70, and 2 from 71 to 80. The oldest patient was 73 years of age.

A rather vague and unconvincing history of trauma was obtainable in 5 of the cases and in the remaining 12 no history of trauma could be elicited. The duration of symptoms varied greatly, ranging from the shortest of 3 weeks with a story of rapidly developing paraplegia to the longest of 24 years with a history of periodic lumbago.

The symptoms and neurologic examinations varied widely, depending

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